

CLAIMS

1. A process for providing a cell and/or a particle comprising a membrane derived from said cell with an additional proteinaceous molecule, said process comprising contacting said cell and/or said particle with a lipid-modified proteinaceous molecule, wherein said lipid-modified proteinaceous molecule comprises at least one protein moiety derived from a first protein and at least one lipidation signal derived from a second protein.
2. A process according to claim 1 wherein said cell is a eukaryotic cell.
3. A process according to claim 1 wherein said particle is a virus.
4. A process according to anyone of the claims 1-3 wherein at least part of the assembly of the amino acid sequence and/or part of the lipidation of said lipid-modified proteinaceous molecule is performed in a cell.
5. A process according to claim 4 wherein said lipidation signal is derived from a lipoprotein.
6. A process according to claim 5 wherein said lipidation signal is derived from bacterial lipoprotein (lpp)
7. A process according to claim 5 wherein said lipidation signal is derived from glycosylphosphatidylinositol (GPI)-linked proteins.
8. A process according to anyone of the claims 1-7 wherein at least part of said proteinaceous molecule is derived from a protein of the immune system.
9. A process according to anyone of the claims 1-8 wherein at least part of said proteinaceous molecule is derived from a single chain variable fragment.
- 30 10. A process according to claim 9 wherein said proteinaceous molecule comprises a lipidation signal at the amino-terminus and a lipidation signal at the carboxy-terminus.

11. A process according to anyone of the claims 1-8 wherein at least part of said proteinaceous molecule is derived from a fragment antigen binding (FAB) fragment.

5 12. A process according to anyone of the claims 1-11 wherein at least part of the proteinaceous molecule comprises at least a part of a receptor, co-receptor, ligand, homing molecule, adhesion molecule, heat shock protein, signalling protein or pump.

10 13. A process according to anyone of the claims 1-12 wherein at least part of the proteinaceous molecule comprises a stretch of amino acids conferring to the proteinaceous molecule the property to interact with a signal-transducing molecule present on the plasma membrane of said cell.

15 14. A process according to anyone of the claims 1-13 wherein said proteinaceous molecule comprises a purification tag for the purification of said molecule.

15. A process according to anyone of the claims 1-14 wherein said proteinaceous molecule comprises a detection tag for the 20 detection of said molecule.

16. A process according to anyone of the claim 1-15 wherein a lipid-modified proteinaceous molecule is added to the outer membrane of a eukaryotic cell or of a particle comprising a membrane derived from a eukaryotic cell.

25 17. A vector for producing lipid-modified proteinaceous molecules used in a process according to anyone of the claims 1-16, said vector comprising at least one open reading frame coding for at least one proteinaceous molecule wherein said proteinaceous molecule comprises at least one protein moiety 30 derived from a first protein and at least one lipidation signal derived from a second protein.

18. A vector according to claim 17 wherein said proteinaceous molecule further comprises a detection tag and/or a purification tag.

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19. A lipid-modified proteinaceous molecule used in a process according to anyone of the claims 1-16.

20. A lipid-modified proteinaceous molecule produced with a 5 vector according to claim 17 or claim 18.

21. A lipid-modified proteinaceous molecule according to claim 19 or claim 20 comprising a flexible linker.

22. A cell or a particle comprising a membrane derived from said cell, comprising a lipid-modified proteinaceous molecule, 10 said cell or said particle obtainable by a process according to anyone of the claims 1-16.

23. A cell or a particle comprising a membrane derived from said cell comprising at least one additional lipid-modified proteinaceous molecule wherein said lipid-modified 15 proteinaceous molecule comprises at least one protein moiety derived from a first protein and at least one lipidation signal derived from a second protein.

24. A cell or a particle comprising a membrane derived from said cell according to claim 22 or claim 23 for use as a 20 pharmaceutical.

25. Use of a lipidation signal in a chimerical protein in the process of directing proteinaceous molecules from the outside to the plasma membrane of a cell or to the outer membrane of a particle comprising a membrane derived from said 25 cell.

26. A kit, comprising at least a lipid-modified proteinaceous molecule, for performing a process according to anyone of the claims 1-16, for using a lipidation signal according to claim 25 or for obtaining a cell or a particle 30 comprising a membrane derived from said cell according to anyone of the claims 22-24, wherein said lipid-modified proteinaceous molecule comprises at least one protein moiety derived from a first protein and at least one lipidation signal derived from a second protein.